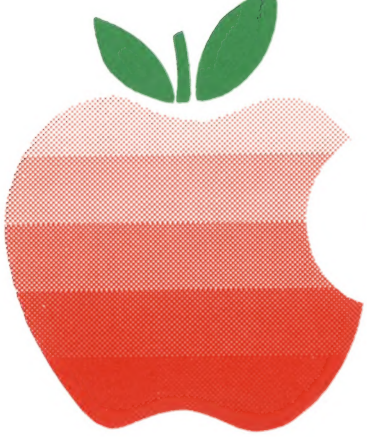

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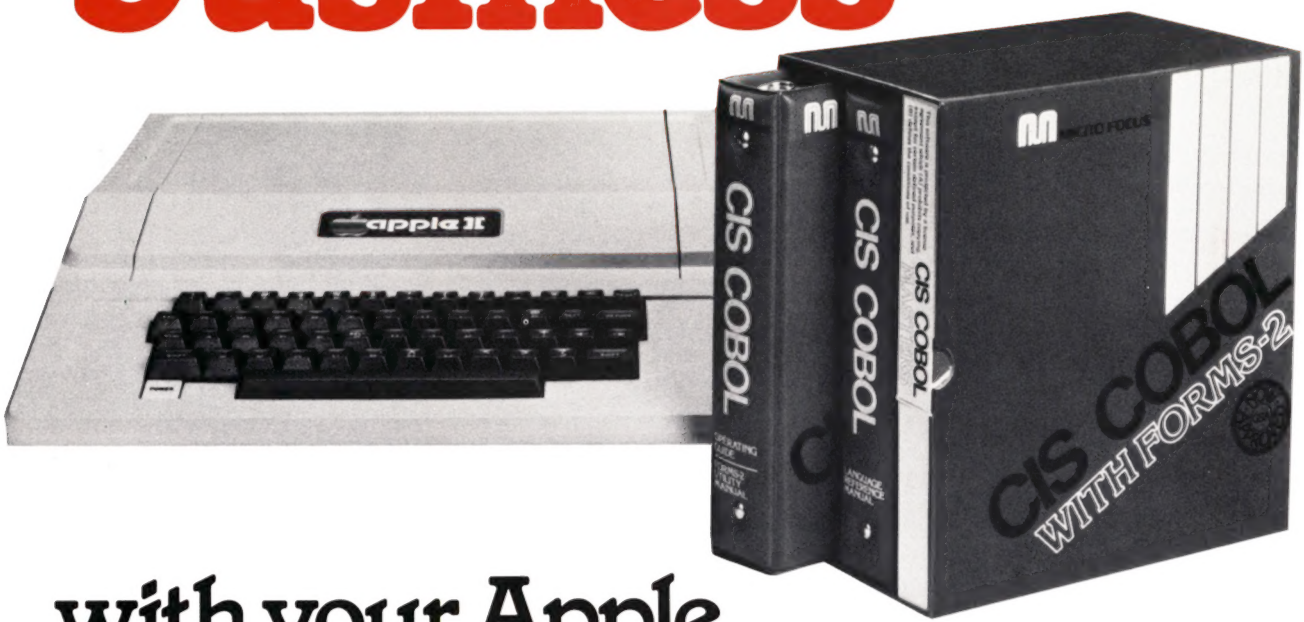

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ISSUE 3.1
CONTENTS

ARTICLES

Disk Copying: An IAC Discussion 4

Telecommunications with UCLA's IBM 3033 WYLBUR System
Stuart LeVine 7

Stoneware's DB MASTER: A User's Point of View Part 2
Joel Amromin 8

PROGRAMS

Diskette Labeler --- Ed Siegel 11

HARDWARE REVIEWS

Random Ramblings - Disk Drives-
Philip B. Ender 16

The New Paper Tiger Printers
Kevin Williams 17

Advanced Business Technology's Softkey & Update *Lou Rivas* 22

A Letter about Time II
Lou Rivas 32

SOFTWARE REVIEWS

Not Quite As Easy as Apple Pi(lot)
Bob Brostoff 24

PFS: REPORT *Philip B. Ender* 26

Micro-Painter *Dwayne Sharpe* 28

Softporn Adventure
S. Taylor Chehak 30

Rasterblaster *Dwayne Sharpe* 30

Universal Boot Initializer
B. J. Franks 22

dBASE II - A CP/M DBM System
Philip B. Ender 34

BOOK REVIEWS

How to Get Started with CP/M
Sid Orr 37

Index to Advertisers

Advanced Business Technology Inc 23
Apparat Inc. 25
ARTSCI Inc. 5
R. R. Belanger Statistics 17
Computer Gaming World 37
Computer Stop 18
Data Most Inc. ..... Back Cover
Data Most Inc. 3,7
FMJ Inc. (Cool Stack) 2
HowardSoft 27
Huntington Computing 29
Human Systems Dynamics 34
D. R. Jarvis Computing 19
John Bell Engineering 35
Keyboard Company 15
Leylan Factor 10
Master Manufacturing 36
Micro Focus ..... Front Cover
No Name Software 32
On-Line Systems 33
Southeastern Software ..... Back Cover
Southwestern 20-21
Spies Laboratories 39
Stoneware Microcomputer Products 9,12
Street Electronics Corporated 14
Topless Computing Associates TCA 31

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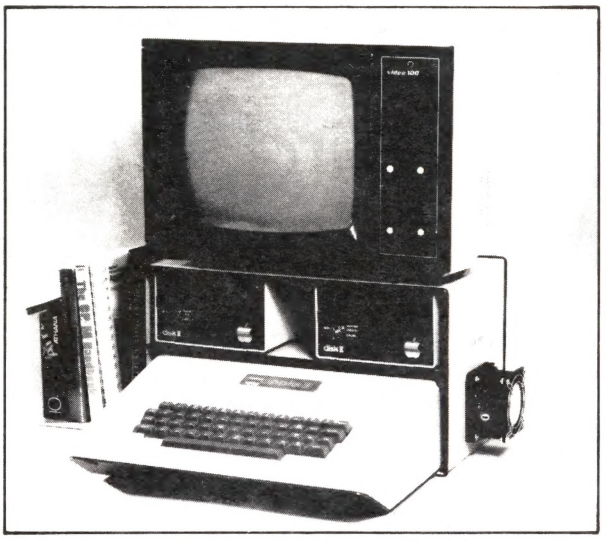

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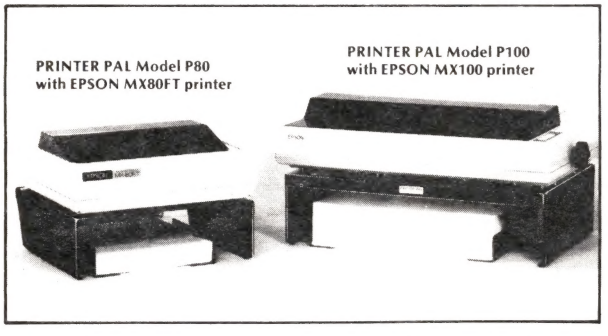

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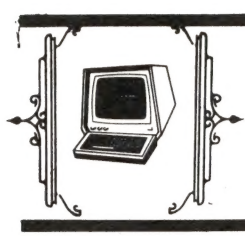

Articles

DISK COPYING: AN IAC DISCUSSION

Editor's Note: The question of program copying and copyright violation is probably the most controversial issue facing manufacturers and users. The following Open Forum on Software Copy Protection and Nibble Copy Programs was held May 2, 1981, at the International Apple Core Annual meeting. The IAC provided the following background and comments.

"A rough tape was made of the proceedings, from which this summary has been made. An attempt has been made to be as faithful to the original intent of the speakers as possible. It was not always possible to discern the speakers' names correctly. Their rough background was always clear, however, and is indicated with the comments."

The International Apple Core recognizes that unauthorized reproduction of copyright material for distribution is clearly illegal. The following comments represent the views of the individuals expressing them. They do not in any way represent the views of policies of the International Apple Core.

Sidney Brookhill, Champaign-Urbana Apple Users Group:

"It is not appropriate or legal for the IAC to try to stop the sale of bit-copy programs. Advertisers putting pressure on the magazines seems like trying to outlaw Xerox machines. It is impossible and unjustifiable, once a person has purchased a program, to try to stop him from manipulating his own data. Resale of copied programs, however, is definitely wrong. If anyone is caught doing that, that person can and should be brought to court by the software vendors. All of us need to exercise constraint. We should not diffuse software around the clubs. My experience has been that swapping is confined to software that the swappers wouldn't have purchased anyway."

David Lingwood, Secretary of A.P.P.L.E., (a user's group, not afflilated with Apple Computer), Software author and publisher:

"Our Board made a decision not to advertise bit copiers prior to hearing from any advertisers on the subject. Unfortunately, there is a good reason for bit copy programs to exist. That is the abysmal backup policies that many software companies have. Paying $30 and waiting three weeks for a backup copy of a program you use every day is terrible. The club magazine is trying to pressure its advertisers to make available good backup policies. That doesn't make bit copy programs more palatable, though. There should be a plague on both houses."

Ken Wilope, Pamlico (Wisconsin) Apple Users:

"The law says that an individual can make copies of purchased software. If I have an important piece of software, I want to make three backup copies of it. If it's locked, I feel I need to make even more before I feel comfortable. Locked copies only create lots of anxiety in the end user. I like C/PM software, which is not locked."

Terry Taylor, Public Domain Software Librarian:

"As a librarian, lots of folks send me programs they've copied from elsewhere. Some even go so far as to put their own name on the stuff. This is clearly ridiculous. I bought and used Locksmith to back up our library's data base, and haven't used it for anything else. My personal experience as I've crossed the nation a couple of times is that most people copy a program and then never use the stuff. They put it on the shelf and never would have bought it anyway. There seems to be a fad around where you have to have a copy of everything. On the other hand, as a user I don't like paying $200 for Visicalc with no backup. I won't pay $30 for a backup either, as I expect a complete product when I buy it. I paid $15 for the Vcopy program instead, and made one backup. There is no easy answer, but I don't think the answer is people ganging up on one product."

Craig Vaughan, Source Apple Users Group; President Sorcery Software, Software Publishers:

"I don't protect any of my software. My products are the type that are in daily use by my customers. Not to let them make backups would be sending them up a creek without a paddle. In addition, I haven't seen a program yet that was perfect for everybody. If

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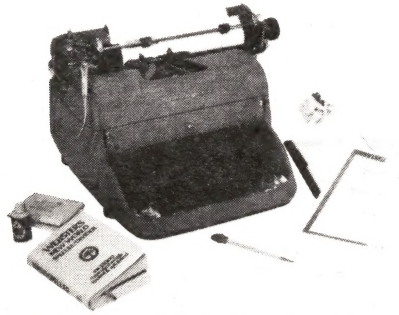
The APPLE II is the most expandable, inexpensive micro-computer available today. It can perform almost any task, including word processing.

The standard APPLE II however, uses a 40 column video display. This display causes a serious word processing problem: How do you display a full sized 80 column letter? Most word processing programs available today do not solve this problem.



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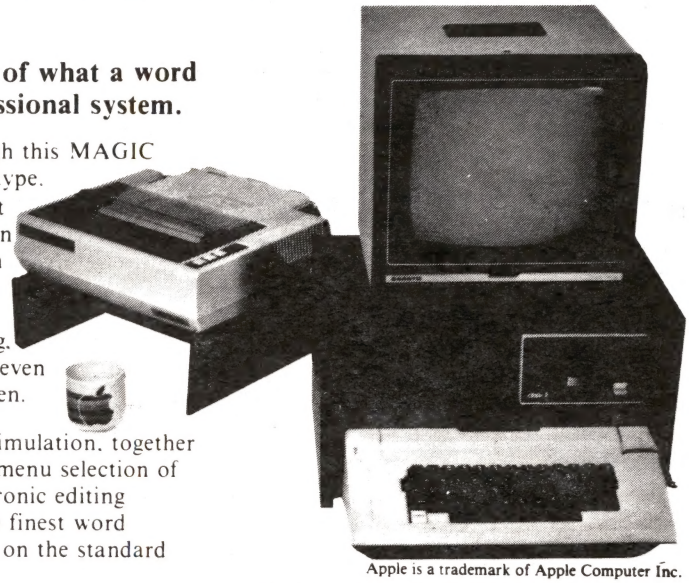

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something is protected, you can't get in there to make it fit your needs. Locked software has kind of limited usefulness because I can't get it onto my hard disk. I can't recommend Visicalc to anyone with a hard disk because it won't work. I think that publishers of high value software should let their software be open for people to back up and modify as they see fit. Piracy is a bad problem, though. All we need is a good test case to really nail somebody to the wall. That will stop it. Copy protection itself generates a lot of interest in copying, simply as a challenge to break the scheme and make a copy."

Barry Thayer, Member of A.P.P.L.E.:

"I challenge A.P.P.L.E. to take a mail vote of all their membership about advertising Locksmith. On December 12, 1980, President Carter signed the Copyright Protection Act, which modified the law and made it very clear that software is protected under the act and that individuals have the legal right to make backup copies for their own use. This is something that everyone who is against the bit copiers should keep in mind. There has been a big financial attack on bit copiers. The editorial director of Creative Computing magazine told me that advertisers had threatened to withdraw $10,000 per month in advertising if they advertised a bit copier. I'm very unhappy about that."

Ken Rose, Member of Northern Illinois Apple Users Group:

"There have always been, and will be, people capable of copying anything. Programs like Locksmith allow you to make a backup but don't make it any easier to make a copyable disk than it ever was. This isn't anything new, it's just spreading the knowledge and making it available on a more individual basis."

John McMullen, President, Big Apple Users Group; President, McMullen and McMullen, Software Publishers:

"There is a tremendous ongoing paranoia about copying. The nibble copy programs generate tremendous attention and just feed the paranoia. Locked programs cause hardships for those who want to modify any systems. A guy who wants to integrate his data base with an accounting system is a good example. Anyway, it's impossible to stop software from being public if you sell it."

George Mephis, Member, Northern Illinois Apple Users Group; Software Writer for Micromusic, Inc.:

"Libraries always buy more than one copy of a book, which they certainly can't back up. People are still allowed to make one copy of part of the work for occasional use. Musicians have a system to receive royalties for life on their works, via ASCAP. Maybe that would work. There were lots of illegal copies of video tapes until the police started arresting anyone who resold them. I would like to urge software vendors to sell backup copies at cost. I think a person has a right to make a backup copy for himself. There are lots of gray areas, so we have to be careful."

Lee Meador, Fort Worth Apple Users Group; Publisher of VCopy:

"The authors and companies that do not copy-protect their software should be commended. There should be an organization that does nothing but provide backup copies to individuals. Software producers can lock users in without copy protection by providing high-level support. A good newsletter is an example which works sometimes."

Jim Hoyt, Apple Computer:

"At this point there is no real solution to the problem. There will always be some software vendors that suffer from paranoia. This session will provide recommendations to vendors who continue to copy-protect their software. What I'm hearing is that most people use bit copiers to make archival backups. If that solution is provided by the vendors, it really becomes a moot point whether the bit copier is there or not."

Dave Gordon, Founder of Programma International and President of Data Most, Inc. (Software Publishers); IAC Vice-President; Member of Original Apple Corps:

"I probably have one of the largest software libraries in the Apple world. As a user, I love nibble copiers. We lie to ourselves when we say we use them only for archival purposes. Everyone who has a nibble copier at some point has copied something that was copyrighted. The purpose of the IAC is to convey ideas to vendors. Programma never protected any software. I think the pressure on the magazine is O.K. I can advertise anywhere I want. I had to take a stand. Programma is now thinking of protecting its software just because of the nibble copier. They spend more time cracking nibble copiers and other protected programs than they do writing software. It's a game. Copiers that can't copy themselves are ridiculous. The IAC should provide archival copies of everything as the representatives of the end users, rather than allow the out-and-out copying that now goes on to continue. By the way, every publisher I talked to unilaterally decided not to publish the bit copier ads, before they received any threats."

Fred Wilkinson, President, San Francisco Apple Core; Director, IAC:

"At a club meeting we asked the members what to do about a nibble copy program that a member had given the club to put on a club disk. The vote was like 52 to 48 to put it on the disk. Then there were lots of comments from the floor and we had a revote. The revote was 48 to 52, so it switched right around dead zero. I don't like all the pressure that was brought on

the member and his family to say that the information shouldn't be distributed. If software vendors and magazines are putting pressure on the nibble copiers, not letting them advertise, then at least the magazines should be responsible enough to pressure vendors to provide reasonable backup by not letting them advertise until they do. The same pressure should be brought to both sides."

Telecommunications with UCLA's IBM 3033 WYLBUR System

Stuart LeVine

Many UCLA students, faculty, and staff (as well as limited number of non-UCLA) Apple users have been logging on to UCLA's IBM 3033 computer with varying degrees of success. I have been using my Apple to connect to the IBM with very good results. And I'd like to share with you how I log on etc., i.e., some of my secrets.

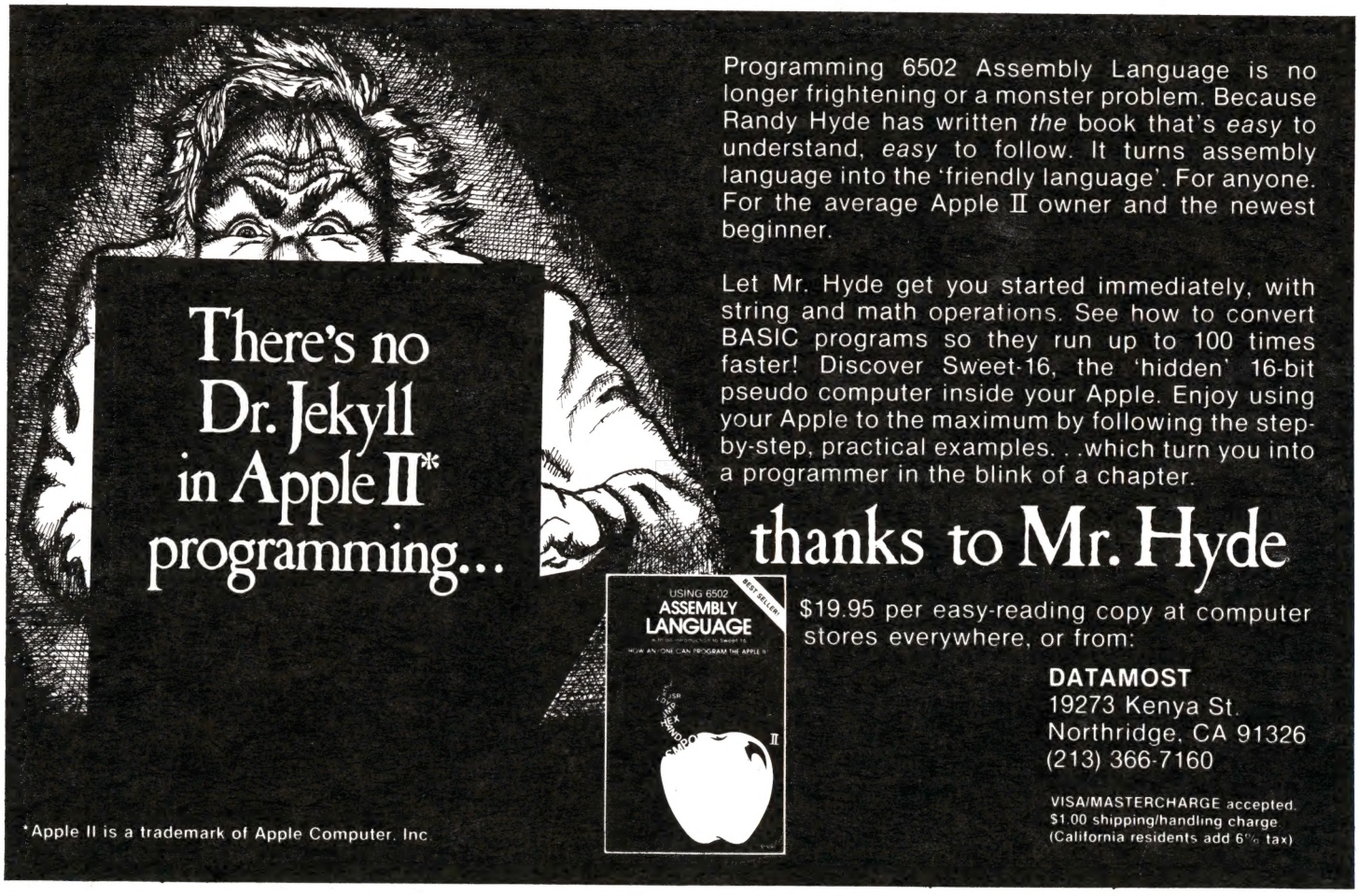
Unfortunately, there is almost no documentation on the use of the IBM 3033 when using the Apple as a remote terminal. The following, discovered partly by trial and error, is a list of the configuration which I have found workable. This list assumes the use of a smart terminal program such as BITS, PITS, Z-TERM, ASCII EXPRESS, etc.

1. Set word length to 7 bits
2. Set parity to even
3. Set stop bits to one
4. Set duplex to half

The IBM at UCLA has no stop-list (ususally control-S) in effect at this time. Therefore, you can only stop the scrolling of text by issuing break commands (multiple cntrl-D's). Here is a list of the commands which work from the Apple.

1. Stop list -- none
2. Break -- control L with M
3. Repeat line -- control S
4. Leave collect mode -- control D

Other installations using WYLBUR may also find this information useful.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DB MASTER A User's Point of View

Part 2

Joel L. Amromin

Part 1 of this article appeared in APPLESAUCE 2.5. The conclusion will appear in the next issue.

Displaying and Editing Data

If a data management system (DMS) is to be very useful, it must allow you to gain very rapid access to the data by many different criteria. When you select the Display Edit data function of DB MASTER, you are shown a blank copy of the data form which you designed. You simply type in the information that you want the program to look for in as many fields as you wish.

Your search criteria can be extremely varied. You can specify ranges of values, relational values, wild cards, and so forth. For example, part of my business data base includes my checking transactions. Any record that deals with the checking account has something in the check number field. I made this field an alpha field, so that I can either type in a check number or a word (such as "DEP" or "SVC").

I also have a Y/N field called "CLEARED," so that when I get my bank statement, I tell the program to search for all records that have a check number greater than "1" (this includes all alpha characters since yye numbers precede letters in the ASCII sequence) and that have "N" in the CLEARED field. As the records appear on the screen, I look to see if they are on my statement. If they are, I press the Escape key. This puts me in the Edit mode. Now I can change any fields (except the auto date). I change the CLEARED field to "Y."

There are some special editing features built in to DB MASTER. If the cursor is on a numeric field, pressing CTRL/I will add 1 to the value of the field. Pressing "+" puts you in the "math" mode. You can now perform four-function calculator math on the field. For instance, one of the fields in my data base is RATE. This is used for receivables. If I decide that I want to give the client a 15% discount, I press "+." Then I type "*". Then I type ".85" and press RETURN. The value in the field is changed to 85% of what it was previously.

When you are through changing the record, press CTRL/S to make the change permanent. To void the changes, press CTRL/V. When you accept the changes, the record is updated. If there is an auto date field, it is updated at the same time. Pressing CTRL/D will delete the record from your data base, but only after you reconfirm the deletion.

Report Generation

Finally, every good DMS needs a good report generator—and the one in DB MASTER is incredible! When you create a report format, you actually create four sub-formats.

The first sub-format is the Page format. Here you can specify how many blank lines you want between records on your report. You also specify whether you want the date and page numbers on the report. You also set up how many lines there will be on a page, and whether you want the program to stop between pages. For a report to the screen, you would make the page 21 lines long and have it stop between pages. You can set up formats for the screen, columnar printouts, or mailing labels. One deficiency is that you can put only one label across on the page.

When you create a page format, it is put in a list of page formats. When you are going to specify the page format, you are first given a list of available page formats. You select (by number) which one you want. Selecting "0" will allow you to create a new format. If you select a format from the list, you then decide whether you want to print out the format specifications, select another format, replace the format with a new one, or move on to the next sub-format. This procedure is followed for each of the three remaining sub-formats.

The second sub-format is the Data sub-format. Again, select a pre-defined format from the list, or create a new one. You can set the report width and then define exactly how you want the report to look. You can specify up to nine title lines for each page. They will be automatically centered on the page unless you end a line with "-." You can put some lines at the top and others at the bottom of the page.

Next you specify the headers to go over the columns of data. You can have up to nine lines of headers. You actually type them into the report form exactly where you want them. If your form is wider than the screen, the display "scrolls" to the right at the end of each 33 characters. Both the headers and the title lines can be edited after you have typed them all in.

Next you specify any calculated fields you want. You are given a numbered list of all your data fields, starting with "1." You then simply type a field number, followed by a math function, followed by another field. For example, if RATE is field 20 and QUANTITY is field 25, you would simply type "20 * 25." The new field is added to your list of available

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fields, starting with number 201. It will appear in your list as "201 RATE*QUANTITY."

To use a constant in a calculation, you enter "0" for the field number, then type the constant value when you are done with the line. if you wanted to add sales tax to the previous calculation, you would just type "0 * 201," then the value of the constant, "1.06." You will then have a new field available: "202 1.06*C201."

The final step in the Data sub-format is actually laying out the data in the report. Each field can take up to nine lines. You specify exactly where you want each field to appear, how long it will be, and (if it is a numeric field) whether you want it added into column totals. There are several other features of this portion of the program— But I will leave those for you to explore yourself.

The third sub-format is the Sort sub-format. Here you specify on which fields you want the data sorted. Again, you are given a numbered list of fields. You simply type in the numbers of the fields you want sorted, starting with the primary sort field and moving down to lesser sorts. You then specify at what level of the sort you want sub-totals displayed. For instance, if you selected a three-level sort, you would then enter a number from 0 to 3. If you enter 2, then every time the next-to-last level of sort changed its content, you would get a sub-total of all fields that you had specified for column totals.

You can also specify that you want page breaks whenever certain of your sort fields change. This feature makes for excellent formatting of reports, with pagination between the various sections. When I print out a check register, I sort by whether or not the items have cleared the bank and, within each category, by date. I then get a sub-total for those that have cleared and those that haven't cleared, and I get a grand total. I also get a new page after the list of checks that haven't cleared.

Finally, you specify the fourth sub-format: selection criteria. Here you decide which records you want included in the report. You can use all the criteria available for displaying records.

You can then save this combination of four sub-formats into a master format. You give the format a name, and the next time you want to use it you select from a list (again, by number). The report is then prepared for you and you are asked whether you want a summary or a regular report. A regular report will print out all the selected records as well as the sub-totals and totals you have specified. A summary report will only print out the sub-totals and totals. This is great for things like getting sales data for salespeople without printing out each transaction.

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DISKETTE LABELER

Ed Siegel

As your collection of diskettes grows, retrieval of the the right program can be a frustrating experience. The following program can help you by creating professional looking labels containing a diskette title in expanded type and a complete catalog of all programs contained on the diskette.

```
100  REM
110  REM  DISK LABELLING PROGRAM
120  REM
130  REM  ED SIEGEL          1981
140  REM
150  REM  PROGRAM TO PRODUCE DOS
160  REM  3.3 DISK LABELS.
170  REM
180  REM  PRINTER CONSTANTS ARE
190  REM  SET UP FOR EPSON MX-80
200  REM  BUT ARE EASILY CHANGED
210  REM  FOR OTHER PRINTERS.
220  REM
230  REM  USE AVERY 4" BY 1.5"
240  REM  LABELS TAPED TO LEFT
250  REM  EDGE OF TRACTOR FEED
260  REM  PAPER.
270  REM
280  HIMEM: 34500: HOME
290  VTAB 3: HTAB 10
300  PRINT "DISK LABELER"
310  VTAB 6: PRINT "USE THIS
     PROGRAM TO MAKE"
320  PRINT "DISK LABELS THAT
     HAVE A MAIN TITLE"
330  PRINT "AND A COMPLETE DISK
     CATALOG."
340  PRINT : PRINT "PROGRAM
     CONSTANTS ARE SET FOR: "
350  PRINT : PRINT "       MX-80
     PRINTER"
360  PRINT "       4 INCH X 1.5
     INCH LABELS"
370  PRINT : PRINT : VTAB 22
380  PRINT "PRESS ANY KEY . . . ";
390  GET Z$
400  GOTO 830
410  HOME : VTAB 15
420  PRINT "INSERT DISK TO BE
     CATALOGED . . . "
430  VTAB 17: PRINT "PRESS ANY
     KEY ";
440 SPACE$ = "                "
450  GET A$

460 F$ =  CHR$ (13) +  CHR$ (4)
470  HOME : VTAB 10
480  PRINT "FORMATTING OF CATALOG
     TAKES"
490  PRINT "10 TO 20
     SECONDS........."
500  GOSUB 1170
510  GOSUB 990
520  REM ::::::::::::::::::::::
530  REM CONSTANTS FOR 4" X 1.5"
540  REM LABELS
550  REM ::::::::::::::::::::::
560 H = 3:I = 21
570  IF J > 27 THEN H = 4:I = 15
580  IF J > 36 THEN H = 5:I = 12
590  IF J > 45 THEN H = 6:I = 9
600  HOME : VTAB 12
610  PRINT "ALIGN LABEL IN
     PRINTER ": PRINT
620  PRINT "PRESS ANY KEY";
630  GET A$
640  PRINT F$;"PR#1"
650  REM ::::::::::::::::::::::
660  REM EPSON PRINTER CONSTANTS
670  REM ::::::::::::::::::::::
680  PRINT  CHR$ (18); CHR$ (27);
     "E"
690  PRINT  CHR$ (27);"G"; CHR$
    (27)"A" CHR$ (129) CHR$ (27)"2"
700  PRINT  CHR$ (14);K$; CHR$ (20)
710  PRINT  CHR$ (27);"F"
720  PRINT  CHR$ (27); CHR$ (48);
     CHR$ (15)
```

```
730  FOR L = M TO J STEP H
740 N$ = ""
750  FOR O = Ø TO H - 1
760 P = L + O: IF P > J THEN 79Ø
770 Q$ =  LEFT$ (R$(P),I) +  CHR$
    (16Ø)
780 N$ = N$ + Q$: NEXT O
790  FOR S = 1 TO  LEN (N$): IF
    ASC ( MID$ (N$,S,1)) > 159 THEN
    PRINT  MID$ (N$,S,1);
8ØØ  NEXT : PRINT : IF P >  = J
    THEN  GOTO 82Ø
81Ø  NEXT
82Ø  PRINT F$;"PR#Ø"
83Ø  HOME : VTAB 8: PRINT
    "OPTIONS: "
84Ø  PRINT : HTAB 4: PRINT "(A)
    NEW LABEL"
85Ø  PRINT : HTAB 4: PRINT "(B)
    DUPLICATE"
86Ø  PRINT : HTAB 4: PRINT "(C)
    VIEW CATALOG"
87Ø  PRINT : HTAB 4: PRINT "(D)
    END PROGRAM    ";
88Ø  GET G$: IF  ASC (G$) < 65 OR
    ASC (G$) > 68 THEN 83Ø
89Ø  IF G$ = "A" THEN  PRINT : RUN
    41Ø
9ØØ  IF G$ = "B" THEN  GOTO 6ØØ
91Ø  PRINT
92Ø  IF G$ = "C" THEN  PRINT F$;
    "CATALOG"
93Ø  IF G$ = "D" THEN  GOTO 97Ø
94Ø  PRINT "PRESS ANY KEY . . . ";
95Ø  GET Z$: HOME
96Ø  GOTO 83Ø
97Ø  HOME : VTAB 12: HTAB 16
98Ø  PRINT "BYE": VTAB 23: END
99Ø M = 1: HOME : VTAB 1Ø
1ØØØ  PRINT "ENTER DISK VOLUME TITLE";
1Ø1Ø  INPUT K$
1Ø2Ø INDEX = (17 -  LEN (K$)) / 2
1Ø3Ø ADD$ =  LEFT$ (SPACE$,INDEX)
1Ø4Ø K$ = ADD$ + K$
1Ø5Ø  RETURN
1Ø6Ø  FOR P = 1 TO  LEN (R$(2))
1Ø7Ø  IF  ASC ( MID$ (R$(2),P,1))
    = 161 THEN  GOTO 1Ø9Ø
1Ø8Ø  NEXT
1Ø9Ø  IF  ASC ( LEFT$ (R$(6),1)) >
    192 THEN M = 6: GOTO 111Ø
11ØØ M = 8
1111Ø T$ =  MID$ (R$(2),P + 2,11)
    + " "
1112Ø U$ =  MID$ (R$(3),P + 2,11)
    + " "
```

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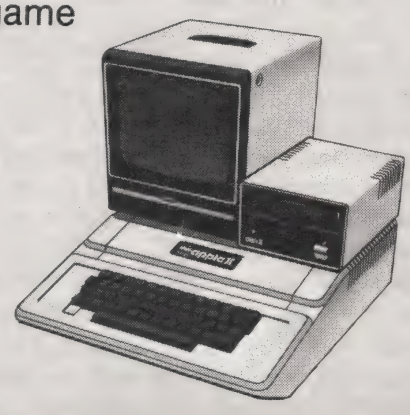

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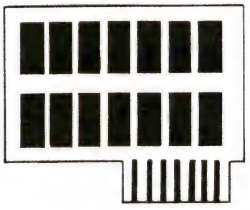

hardware reviews

RANDOM RAMBLINGS -DISK DRIVES-

Philip B. Ender

This is the first of what I hope to be many columns relating to Apple computers but not necessarily restricted to Apples. My goal is to look critically at how we use our computers and how they might serve us better. This first column starts off with a discussion of the Commodore 8032 computer which is sitting in my office awaiting evaluation. The Commodore has features that Apple users should be aware of, in particular, the 8050 disk system.

The 8050 disk system is a dual drive mini-floppy system that has a capacity of about 500K bytes per drive (77 tracks and 2087 sectors). These disks are quad density single sided. The disk operating system is entirely self-contained within the 8050. The 8050 has its own ROM and RAM so that once a disk command, such as COPY is given, the disk system doesn't need to be under the control of the host computer. In fact, the 8050 has two 6502 chips of its own. The 8050 disk system connects to the Commodore computer via the IEEE-488 bus. It might even be possible to use the 8050 disk system with an Apple using an 488 interface card. Disk commands could be passed to the 8050 via string variables.

Why all this talk about the Commodore disk system? One of the constraints that many Apple owners are running into is the limited capacity of the Apple disk drives. For example, using Pascal can be a frustrating experience. The UCSD Pascal system (as well as large CP/M systems) requires a number of utilities and systems programs. I am getting tired of all the disk swapping that is necessary to make Pascal (or CP/M work). It was a real joy to store about 25 programs on a Commodore disk and find that there were over 1800 sectors still free!

Apple's answer to the need for more disk space is to jump from 280K bytes on a dual floppy system to a 5MB hard disk system at a cost of $3,500. Supposedly the Apple III will sport a built in 5MB hard disk in 1982. Hard disks may store lots more data but floppies won't disappear even if hard disk systems drop to under a $1,000. Floppies will still be used for software exchange. Besides dual floppies have an advantage over hard disks in that they can be backed-up by copying from one drive to another.

Anyway, what most of us need is something in between 280KB and 5MB. The mating of the Commodore disk system to the Apple may be one possibility though not perhaps the easiest way to increase disk storage on your Apple. Sorrento Valley Associates has offered controllers for eight-inch floppy systems for several years. The new AMS-8000 controler from SVA can handle up to 4MB with eight-inch drives. Vista Computers is offering a DMA controller that will run eight-inch floppies with up to a total of 2.4MB. And MicroSci has been offering 70 track minis (280K per drive) for a year now.

Although these systems have greater storage capacity, they are not without problems. One big problem is getting them to work with all the different Apple language systems. Some systems need special software patches (at extra cost) to work with Pascal and CP/M. Without both software and hardware fixes others cannot be used with the auto boot ROM.

A friend of mine using the Microsci system is experiencing disk I/O problems. The system seems less reliable than the Apple Disk II systems. Disks are initialized and written to but cannot be booted or read. Then there is the acquiantance who purchased a 2.4M system for use with Pascal. He filled up about a third of each disk with programs and then ran out of space in the directory (UCSD Pascal allows only 77 entries per volume). The obvious solution is to be able to configure the 2.4M as more than two volumes.

There is a definite market for these products, given that they can be made compatible with existing Apple software and that they can be made as reliable as Apple manufactured equipment.

Editor's note: I have two Micro-Sci A-70 disk drives. Both work very well, have been very reliable, and have provided twice the shorage of the Apple drives. I don't know what the problem has been with Phil's friend's drives, but Al Donnally of Micro-Sci has assured me that they service their products.

THE NEW PAPER TIGER PRINTERS

Integral Data Systems' latest additions to their line of Paper Tiger printers are the 460 and 560. Because of what I had heard of the IDS 440, the Paper Tiger brand led me to expect rugged reliable printers. So I purchased a 460G for use at home and a 560G for use at work. I have used both for several months. here are my comments, those of a non-programmer, on the two printers:

Most Attractive Features

Both printers have the following:

-A 9x48 dot matrix for enhanced print

-Eight print sizes

-132 columns across eight inch paper

-84x84 dots per square inch graphics

-2k buffer

-hardware or software printer controls

-Both parallel and serial interfaces

Other features:

-An option which allows the use of 4.5 inch roll paper using built-in rollers (460 only)

-A carriage capable of handling 14 inch paper. It can print 235 columns across this wide paper. (560 only)

Documentation

Both printers had manuals which i found to be thorough and helpful. i was pleased to see a sample Basic program demonstrating how to use the Paper Tigers features in a program. The schematic for the controller and power supply is included in both manuals.

Durability

Both printers have solid metal covers and appear capable of taking normal handling very easily. My 460 has been hauled around in the back seat of my car many times and has yet to fail me.

Service

IDS provides direct service on a national basis through a toll-free telephone number. Also, there is an extensive network of service agents. For example, there are eight service agents in Los Angeles county.

Most Unattractive Features

The 460 has a propensity to recycle its output, i.e., the paper gets caught and jams the printer. This

SOFTWARE FOR THE APPLE II HOME COMPUTER

	Price Applesoft (CP/M)
Analysis of Variance—Multiple factor, analysis of variance for up to ten main effects and ten levels, with equal cell frequencies. All two-way interactions evaluated. Output includes: degrees of freedom, mean square and F ratio for all main and interaction effects	$ 85 ($130)
Analysis of Covariance—Multiple factor, analysis of variance (up to five main effects) with as many as ten levels or groups, and from 0 to 20 covariates. Appropriate for both equal or unequal cell frequencies. Tables include: source, degrees of freedom, mean square, and F ratios for main and interaction effects	$105 ($160)
Factor Analysis—Principal components, VARIMAX and oblique simple structures, for up to 60 (up to 45 with CP/M) variables and 40 factors. Factor intercorrelation matrix for oblique structures. Also orthogonal-powered vector and weighted cross-factor simple structure methods. Raw data or correlation entry. Three estimates of communalities: units, absolute maximum row, and squared multiple correlations	$ 95 ($145)
Discriminant Function—For up to 100 (CP/M=58) variables. Discriminant function coefficients, F ratio, cutoff point and z score cutoff points. Dichotomous groups	$ 70 ($105)
Multiple Regression—For up to 100 (CP/M=61) variables. Regression coefficients, regression and residuals tables, multiple correlation coefficient, F ratio, means, standard deviations and intercorrelations. Printed listings of residuals for each observation	$ 60 ($ 90)
Any Four Programs	$190 ($310)
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Each program includes one master diskette and a complete instruction manual. A special feature of each is that they provide for the permanent storage of data on blank diskettes which allow for an unlimited number of cases.

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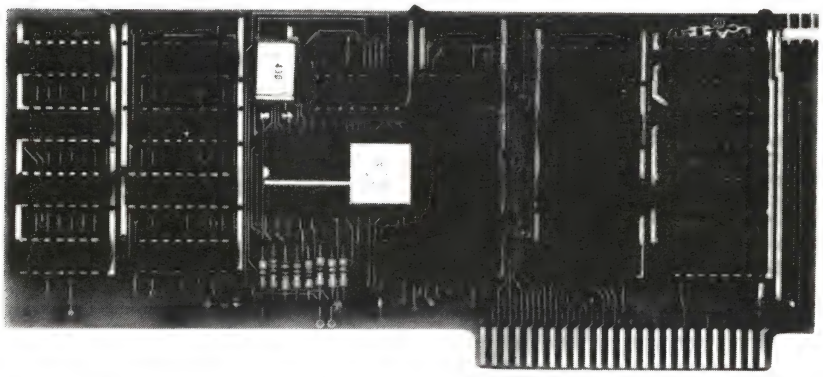

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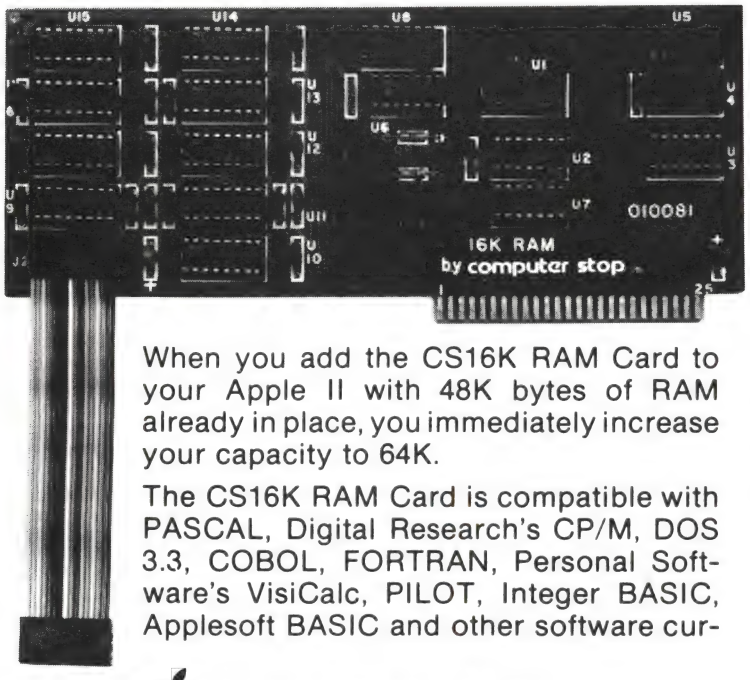

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tendency is easily overcome with the use of the optional paper tray. However, the need for the tray is so strong that the tray should not be optional.

The 460, like the 560, can print on 6-part paper. However, the 460's print control knob is located under the cover and not easily accessed.

The Cover of the 460 is very attractive and provides a very nice package. However, though the cover provides comfortable clearance of the 460's internals in most places, the cover fits too snugly behind the paper tractors. Unfortunately, this is also where the backside of the 460's motherboard is located and the first few times I replaced the cover I was very uncomfortable.

The 560 has an acoustical cover over the print area. On my 560, the fit of this cover was very poor. Also, the cover is attached by a spring which holds it in place but also succeeds in keeping the cover in the way when one is loading or unloading paper.

The 560 can accept paper fed from the back, front, or beneath it. These feed options make the 560 very adaptable. However, the 560 sits so low that it must be lifted to be fed paper. Also, when fed from the back, it will re-input its output. The 560's optional tray offers a poor solution to this problem. It sits too low to allow an adequate supply of paper to be stacked behind the printer and it isn't necessary if the other feed options are used.

Service

The 560 we purchased had some real problems. The Stepper motor and much of the electronics have been replaced. All services were completely covered by warranty but the service from the selling dealer as well as the nearby servicing dealer left much to be desired. In particular, the service agent we used seldom returned phone calls. The 560's last visit to this dealer lasted 30 days. At the end of 30 days, we were told the 560 was being sent to another service agent.

Final Comments and Some News

IDS has developed several character sets which will soon be available. They are the following foreign languages: Spanish, French, German, Swedish, and Norwegian. Each of these will be available as ROM for the printer. Both printers can accommodate a second character set on their IC boards.

The Grappler by Orange Micro is under consideration as an IDS OEM option. The Grappler is a parallel printer interface with graphics firmware.

Conclusions

The 460 is an exceptional printer. It provides quality print,good speed, and reliable operation. The 560, because of my poor local service, still has to prove itself. The 560's print quality and speed are comparable to the 460's.

IDS has recently cut the list prices on both printers considerably. These new prices provide the extra features of the Paper Tigers on a more cost efficient basis. They deserve serious consideration as top-of-the-line dot matrix printers.

Kevin Williams

THE FOUNDATION — MONEY

The Apple Education Foundation is now the FACE (Foundation for the Advancement of Computer-aided Education). They want to "improve the results of the educational process by supporting new methods of learning through the use of small computers". Wow! They could start by improving their style! Anyway, they're waiting to give you big bucks. They also will send you their Journal of Courseware Review. Write: FACE, 10863 Stevens Creek Blvd., B-2, A-1, Cupertino, CA 95014, for information, forms, etc.

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The ABT SoftKey

The SoftKey is a new product from the expanding line offered by Advanced Business Technology, Inc. (12333 Saratoga - Sunnyvale Road, Saratoga, CA. 95070). The SoftKey is an auxiliary keyboard that gives the Apple II owner fifteen extra keys in a 3 by 5 layout. The keycap covers are made of a clear plastic. The user may remove these covers to label each key as the specific application requires. Many pre-printed legends which are suitable for various applications are included.

The SoftKey, in keeping with other ABT products, is ruggedly designed and attractively styled. The cable appears to be thick enough that it should not be a weak point and it is long enough that the SoftKey can be comfortably used. The documentation and disk software are clearly written and instructive.

Unlike the older ABT KeyPad, which connects to the Apple keyboard and as such is completely transparent - merely providing a numeric pad addition to the existing keyboard, the SoftKey connects thru the game connector (in a manner that is incompatible with the popular "one-wire" shift mod), thus requiring a software driver to "read" a SoftKey key-push. Some of the pre-printed legends included with the SoftKey would make it the ideal accessory for any of the popular word processors. Unfortunately, as no customized drivers are offered, the user must modify the existing software - not an easy task.

If you are good at disassembling and modifying existing code, and would like to spend the time adding the SoftKey drivers to your favorite software - then this product can enhance and speed up any data entry task. However, if you just want to "plug-in-and-go", better to wait until the SoftKey comes with mods for the software you will be using.

Lou P. Rivas

UPDATE
The ABT SoftKey

In my previous review of the Advanced Business Technology Inc. SoftKey, I indicated that this was a very well made hardware product that only required extra software to be widely usable. As stated before, the SoftKey is an auxiliary 15-key pad that attaches to the Apple via the game connector and requires a software driver to read it.

The SoftKey software reviewed had drivers for BASIC but lacked "patches" to make it usable with existing word processors, Visicalc, etc. This problem is being addressed by ABT. The newest release of the SoftKey software has patches to allow its use with the popular word processor Apple Writer.

Also available, for the first time, at extra cost, is a SoftKey interface disk for Pascal using the ATTACH.BIOS feature of the new Version 1.1 Pascal. The only sour note with the documentation is that ABT, like everyone else using the ATTACH.BIOS, gives the installation instructions as if theirs was the only driver. If you need to install two drivers, better get a copy of the original ATTACH.BIOS documentation.

Additionally, ABT is offering a "bounty" of $250 for the first ten linkages, that they publish, to existing popular software. But hurry, this offer expires December 31, 1981.

Lou P. Rivas

UNIVERSAL BOOT INITIALIZER

A problem faced by many software companies and by clubs which give out a DOM (disk of the month) has been solved by Art Schumer and Cliff Howard's Universal Boot Initializer (S & H Software, Box 5, Manvel, ND 58256; 701/696-2574, $40). The problem was how to provide a disk that would boot easily and quickly on numerous Apple configurations: DOS 3.2 or 3.3; Plus or Integer Apple; with or without a 16K RAM card; with or without a ROM (Integer or Applesoft) card. If a 16K RAM card is available, UBI loads it with BASIC in only 6 seconds and locks it so that if the system is rebooted, the language is not lost and the card refilled. It provides for Integer, Applesoft, or Binary HELLO programs.

The system is obviously useful to clubs and to software companies. It is also useful to an individual, allowing him to uniquely configure his own disks with only the BASIC that he needs in his RAM card. It is a system which, I believe, many users will find very convenient.

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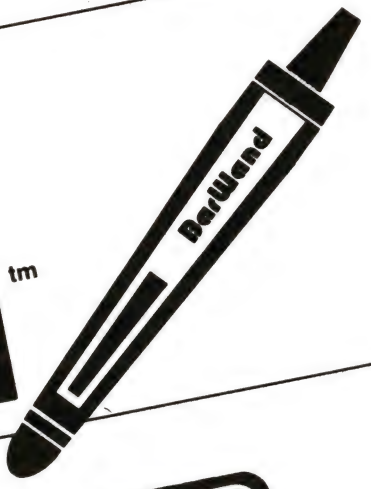

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NOT QUITE AS EASY AS APPLE PI(LOT)!

Apple PILOT (PILOT stands for Programmed Inquire, Learning or Teaching) is a set of very sophisticated editors for use, ostensibly, by teachers to create CAI, (computer assisted instruction), on the Apple computer. Sophisticated, yes; easy, somewhat; fast, NO!!

The Apple PILOT Lesson Text editor incorporates portions of the UCSD Pascal Editor, and requires an Apple II or Apple II# computer with at least 48k bytes of memory. Two disk drives are needed to create programs, but only one is needed to play back the lessons. You also must have either the Language System or a 16K card such as the Andromeda, the Microsoft or the Super Ram-II.

The system comes with two manuals, an editor's manual, and a language reference manual. Each provides detailed information on the use of Apple PILOT, both in terms of creating and using programs. The manuals are easy to read, and logically organized. However, it isn't a one-evening system. It takes some time to learn how to use the system efficiently and to be able to take advantage of its many features. There are 22 major commands, six of which are frequently used and can be learned quickly. It is the other 16, and their modifiers, that will take time to perfect.

PILOT is really four separate editors:

1. Lesson Text Editor
2. Character Set Editor
3. Graphics Editor
4. Sound Effects Editor

There are two modes: the Author Mode, and the Lesson Mode. I will take you through each mode, one step at a time.

The Author Mode is the mode in which you would create a lesson. In this mode you may use any, or all, of the four editors. The first step is to completely, and thoroughly, plan your lesson. The more time spent in the planning stages, the less time will be spent in the programming and de-bugging stages.

The Lesson Text Editor is where you would start when you are ready to write your program. All you have to do is type "T:" and you are off and running! As in Basic, you also use "R:" (REM) statements. Once you have begun, and you find errors, or wish to make changes, there are a number of ways (as in Pascal) to find and correct/change words, sentences, or paragraphs. The cursor is controlled by the arrow keys, as well as CTRL() commands, and by use of the space bar. This makes cursor control very easy and does not require remembering keyboard letters.

You can change the direction of the cursor movement, use upper and lower case letters, JUMP to the beginning or end of the text, PAGE, and FIND the next Token or Literal occurrence of the target string, either in front of, or behind the cursor's present position. Letters may be replaced, deleted, or exchanged. Portions of sentences may be moved to other locations. Each of the above items may be done while in the Lesson Text Editor mode. At the top of the screen is a menu of commands to help you remember how to perform each of the operations desired. This helps to make using PILOT very easy. Most of the commands are executed with single key strokes. For example, JUMP is J, FIND is F, reversing the direction of the cursor is either "|" or "/". INSERT is I, and DELETE is D. The commands are logical and after just a few hours one may become quite adept at using this part of the system.

Once the text portion of the program is finished, you may need to use another editor, such as the Graphics or Sound Editors.

The Graphics Editor, which is easier to use than Pascal Turtle Graphics, can be used in two ways: either by using keyboard control letters to move the cursor one space at a time, or by using the game paddles much as if you were using an "Etch-A-Sketch". Once you have created the graphic, you can color it in by placing the cursor anywhere within an enclosed area of the graphic, selecting the colors you want, (black, white, green, violet, orange, or blue), and then pressing the letter "A", for "area fill". With a single key stroke you could also change that color to its complement! With the use of the FRAME, CIRCLE, or BOX commands, you can produce shapes by merely defining their size.

When your graphic is completed, it may be saved in one of two ways. If saved in the normal manner, the

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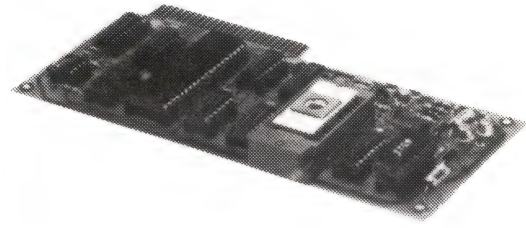

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graphic, when recalled later in a program, will be reproduced in exactly the same manner in which it was drawn - dot by dot. This can be very slow when a large graphic is involved. However, there is an alternative way to reproduce the graphic. This involves saving the graphic in the "quick save" mode. When this is done, and you later recall the graphic, it is flashed onto the screen instantly, as a whole picture. There are educational advantages to having both features.

Any graphic can be recalled with instructions from within the text of a lesson. In addition, the graphics screen is capable of displaying text either within a graphic, or in window on either a side or at the bottom. When a graphic is displayed on the screen, the student can be instructed to identify a point of interest on the screen using cross-hairs positioned with the game paddles. The program can then check to see if the location is correct.

Another special editor is the Character Set Editor. This editor allows you to substitute any character you wish, for any keyboard character. You may draw your own character set for such languages as Japanese, Chinese, or whatever. You are given a large grid on the screen on which to draw each character. PILOT then reduces this large grid to a character the size of a normal character. When the new character has been assigned a keyboard position, all that you have to do is to strike that key and instead of getting the keyboard letter, you get the newly created letter. The editor is not restricted to displaying only "letters". You may create symbols as well. You could create chess pieces, stick figures, or symbols to be placed on a map. Again, PILOT has made the task of creating alternative characters or symbols very easy. It does, however, take time.

The fourth editor is the Sound Effects editor. This is, perhaps, one of the easiest editors to use. You can create a musical composition of up to 100 notes. There are three full octaves, and two partial octaves available to you. They range from the second F below middle C to the third F above. The editor accepts single key commands to indicate sharps, flats, naturals, and rests. A single note may have as many as eight different modifiers:

1. The note itself
2. The octave number
3. The pitch name
4. An accidental sign
5. The note length (1/4, 1/8, etc)
6. A dot on the length
7. A tie to another note
8. A dot on that note

In addition, there are three special effects available. You may create a "click", at an indicated pitch, or you may "sweep" from one note to another, or you may create a "warble" between two pitches for a given duration. If you want to copy some music from a written score, putting it into the computer will only take a few minutes. But creating your own may take a little longer!

With easily developed sound effects, your program can be dressed up in no time to be quite motivational for your students. Obviously, in many classrooms, you wouldn't want music and sound effects that disturb other students.

An Apple PILOT lesson can be created with the four editors that will be both motivating and educational. From the Text Editor, you can call up any, or all of the sub-routines created by the other three editors. It only takes three letters and the name of the file.

Thus, you can start with a visual, present some text, ask questions about it, get answers, see if the answers are right, correct the student, and then go on. This can all be done in color, with music and special effects! You can even program the lesson to accept "almost right" answers! Once you have taken the time to learn the system, it becomes possible to create very intricate and exciting programs. It is not necessary to be a programmer to use PILOT. The two manuals that come with the system are quite explicit, and well written. Because there is literally an infinite number of possibilities with this system, there are very few examples in the manuals. However, the instructions are very good. And with a printer, you can print out the demo lesson for study and as examples.

Apple PILOT can help you create lessons for both youngsters and adults. The programs can be created for any subject, any topic, any field of instruction. It is a powerful lesson writing tool.

Bob Brostoff

PFS:REPORT

Once again, I am reviewing a product from the Software Publishing Corporation. This time it is PFS:REPORT (about $95), an add-on used in conjunction with PFS. Before beginning this review, you may want to reread Applesauce 2.3 for my review of PFS (Personal Filing System). There, I explained that PFS is screen-oriented and is not a true database management system. Now, however, with the addition of PFS:REPORT, you can have a database management system that is both screen- and printer-oriented. In this review, when I describe how I use PFS:REPORT, I will also be using PFS, because you must have PFS in order to create the files used in PFS:REPORT.

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Softlights

By Fred Huntington

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The documentation is quite complete and even provides a 5 minute tutorial. The booklet is 32 pages in length describing its use, features, and color schemes. Also included is a small magnifying glass and 6 crayons. The crayons are for coloring in the documentation book the colors as your monitor shows them. This is an aid as an easy reference in selecting the proper color to paint in.

One feature that bothered me was that once an area has been painted in it cannot be erased. I found that when the color selected wasn't right, the whole picture had to be redone. The documentation states this and recommends that the picture be saved often to avoid this difficulty.

The disk comes in the 3.2 dos format and is upgradable. Besides the Micro-painter program, there are 8 unfinished hi-res drawings to be 'painted'. A short program is listed allowing you to draw pictures using the paddles if you don't already have such a program. It's a shame this wasn't placed on the disk.

The program sells for about $35 and is worth it if you like to develop hi-res pictures in a variety of colors. Beware, though, this is not a drawing program.

Dwayne Sharpe

SOFTPORN ADVENTURE (Very Soft)

An APPLE computer seems an unlikely source of eroticism, but Blue Sky Software has nevertheless come out with a game called SOFTPORN ADVENTURE. It is a game recommended "for adults only" and "not suggested for minors or persons easily offended," but probably more likely to appeal to just that less seasoned set.

Of course, it has to be hard to successfully bring any kind of sensuality (other than that inherent in the computer itself--the smooth and graceful curves of its casing, the gentle whirr of the disk drive, the press and click of its buttons and keys) to anything so cold and remote as a computer. and SOFTPORN ADVENTURE is all text and no graphics-- if ever an adventure game called for graphics, this one screams for them.

The player's goal is to maneuver his "puppet" through a recreational town in 2020 A.D., "Lost Vagueness," and the seduction of three women --a classy callgirl, a sleazy hooker, and a virginal girl-next-door. Taxis, truly fantastic in their availability and promptness, carry your puppet back and forth between three main sets--a rundown bar, a disco, and a posh casino.

The casino is the source of your cash. There you can play the slots, where the odds are better and payoffs can be double or triple, but the bet is fixed at $100, or blackjack, where you may need more skill but can double or triple your bets and your winnings, too. Without cash in Lost Vagueness, your are truly the loser, and it is impossible then to continue to play. Better dead than broke here.

Because there are plenty of ways to die, but even a dead puppet gets a second chance. if you do make a mistake and get yourself killed, you go to purgatory and are allowed to choose 1, 2, or 3 to stay where you are-choose again, be dead for good-game over, or get yourself revived back into the game right where you left off.

The game is an easy one to get into. it is not too difficult for the first time player to catch on to how to get from one place to another, and then a lot of his further success will depend upon his gambling luck and ability.

But pornographic? Erotic? Hardly. There are plenty of bathroom jokes--lots of dog poop and a broken toilet or two. The puppet looks in the mirror and sees a "pervert!" The author drops a desperate-sounding plea for any voluptuous blondes who might be playing (not likely, this game is definitely male-oriented) to give him a call! And the seductions themselves turn out to be not much more involved than getting yourself into the right place at the right time and commanding your puppet to "seduce girl." (You can use rougher language, if you want, and get the same results.)

The scatology was irritating ("defecate" was misspelled!), the television channels real groaners, the so-called eroticism self-conscious, juvenile, and priggish. The game is, however, a different and interesting one and a nice enough change from the usual of spaceships and dragons and dead bodies. But, if you are looking for a little titillation here, forget it, look elsewhere. SPACE EGGS is sexier than this.

S. Taylor Chehak

RASTERBLASTER

Rasterblaster, by Bill Budge, is an arcade-quality video pinball game. The action of this machine language program is fast and the color and sound are great. The flippers are controlled by the paddle buttons, one for each flipper. The 'ball' pressure is set by the paddle as well as 'tilt'. The program allows for up to four players and the high score is kept for the duration of the playing session. (I have seen a score as high as 254000 in easy mode.)

The game allows for either an 'easy' or 'hard' game. The difference is whether the ball is lost or not when is goes down a side slot. The game also allows

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for more than one ball to be in play but only when certain conditions exist.

The disk is in a format to allow booting on either a 3.2 or 3.3 dos system with 48k.

Dwayne Sharpe

A Letter about TIME II

Dear Earl,

TIME II wasn't worth the trouble of turning on my Apple. However...

This clock board uses the same chip as CCS and the Superclock II (the 5832), but it does not have an onboard ROM driver. This means two things: (1) any existing software expecting to read the clock by 'IN#n:INPUT...' will not work, even if the "n" is changed to the correct slot; (2) a "clock-finder" routine cannot be written — all your software must have the slot as a constant that would have to be changed if you move the clock card. In addition, the software supplied on the diskette is not very informative (the Applesoft routines are not even documented).

The manual is barely adequate. It does a good job of "walking" the reader through increasingly more complex BASIC programs, such as how to read and set the time/date using POKEs. But reading the clock from Pascal? Good luck! How to write an interrupt routine is not covered, although the fact that it can cause interrupts is. From the discussion of PEEKs and POKEs, you can infer some of the workings of the clock chip, but there is no discussion of the design of the board, I/O ports, etc. For instance, it is not clear if the interrupt hardware uses the priority schema (I suspect not).

All in all, you can see I don't think very much of this product. It does have one useful feature — it can interrupt on both the NMI and IRQ pins, and at different rates. The rates are the usual four offered on the other real time cards.

Note that I didn't spend too much time examining the TIME II; therefore, this letter should not be regarded as a review, but as my first impressions.

Sincerely yours,

Lou Rivas

Editor's note:

For an evaluation of three other clocks, see Lou's review in APPLESAUCE 2.3, (January-February, 1981).

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    30 NEXT I                 JSR PRTINT
                              ADR I
                              JSR NEXT
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dBASE II A CP/M DBM SYSTEM

Once again I am a happy man. Almost nothing feels better then to receive a piece of software that works the way it should. This time around I'm reporting on dBASE II, a data base system programmed by Wayne Ratliff for Ashton-Tate (3600 Wilshire Blvd., Suite 1510, Los Angeles, CA 90010) priced around $700 (whew!!!).

Unlike previous data base management systems I've looked at, dBASE is not a menu driven file handling system. It is a true data management language that can be interpreted directly from the keyboard or programmed into a command file. (Table 1 has examples of several commands).

To run dBASE II on the Apple requires a Microsoft Z-80 card and at least 48K (a 16K card is better). You can use dBASE and handle files of up to several hundred records on a single disk system. However, 2 disks are better.

Usually, in evaluating data base systems, one asks certain questions. Can the system do this, can it do that, etc? The questions don't have much meaning when discussing dBASE because it is a language. It can do whatever you program it to do. This doesn't mean that dBASE has no limitations. It is limited, for example, to a maximum of 65535 records. Each record is restricted to 1000 characters or 32 fields, whichever comes first.

Let's get to some of the questions now. Does dBASE have screen templates for ease of entering data? Yes, both built in and fully programmable. Does dBASE have a built-in report generator? Yes, but it is not very flexible. Using the dBASE language, however, you can program just about any report that you can think of. Can dBASE files extend over disk boundaries. No.

Can dBASE sort files? Yes, using two different methods. First dBASE can sort files and actually shift records around. Or it can "index" a file leaving the records in place and then traverse the file in order. The method of indexing is much faster since there is no actual movement of records.

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JBE's EPROM Programmer is designed to program 5V 2516's, 2532's & 2716's. It interfaces to the JBE Parallel I/O card using four ribbon cables. An LED indicates when the EPROM is being programmed. A textool zero insertion force socket is used for the EPROM. Comes with complete documentation for writing and reading EPROM's in the Apple II or Apple II Plus. Cables available separately.

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Single board large scale Integration Microcomputer. This 4.5 x 6.5 board uses the 6502 Microprocessor, two 6522 VIA's, four 2114 RAM's, 2516, 2716 or 2532 EPROM. The fully buffered 22/44 pin bus is similar to the KIM® , SYM® , and AIM® expansion connector. The four 8 bit I/O ports connect through 16 pin dip sockets. This board was designed for control and is ideal for Personal and OEM use.

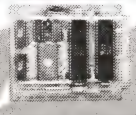
- 6502 MPU
- Two 6522 VIA's
- Four 2114 RAM's (2K bytes)
- One EPROM 2516 or 2532
- Crystal clock 1 Mhz
- Requires 5V 1AMP Power
- 4.5 x 6.5 card
- Power on reset
- Fully buffered-expandable
- Solder mask-both sides

Use your Apple II Computer, JBE 6522 Parallel Interface card and EPROM Programmer as a development system for SLIM.

Prices:

81-260A	**$199.95** Assembled
81-260K	**$149.95** Kit
81-260B	**$ 39.95** Bare Board

6502 MICROCOMPUTER



6502 MPU, 6522 VIA, 2716 EPROM, 2114 RAM single board computer. Single 5 volt power supply at 400 Ma. Two independent 8 bit I/O ports with handshake lines. RC controlled 1 Mhz clock.

Complete documentation. I/O lines use 50 pin edge connector. Data and address lines are not accessible. Mod. for 2532 is included. EPROM is not included. 1K RAM, 2K EPROM, 2 I/O ports.

80-153 Assm.	**$110.95**
80-153 Kit	**$ 89.95**
80-153 Bare Board	**$ 19.95**

Z-80 MICROCOMUTER

Z-80 MPU, Z-80 PIO, 2716 EPROM, 2114 RAM single board computer. Single 5 volt power supply at 300 Ma. Two independent 8 bit I/O ports with handshake lines. RC controlled 2Mhz clock.

Complete documentation. I/O lines use 50 pin edge connector. Data and address lines are not accessible. Mod. for 2532 is included. EPROM is not included. 1K RAM, 2K EPROM, 2 I/O ports.

80-280 Assm.	**$129.95**
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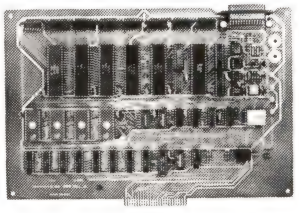
JBE I MICROCOMPUTER



JBE's 7.75 x 11.75 6502 base Microcomputer has the capacity for 16K of EPROM, 4K of RAM, 8 Parallel Ports and 1 Serial Port. Monitor and Tiny Basic are also available. The fully populated version includes:

- 1 6502 CPU
- 4 6522 VIA (8 Parallel I/O Ports)
- 1 AY5-1013 (Serial I/O Ports)
- 8 2114 RAM (4K)
- 2 2716 EPROM (Monitor & Tiny Basic)

The partially populated version includes:

- 1 6502 CPU
- 1 6522 VIA (2 Parallel I/O Ports)
- 1 AY5-1013 (Serial I/O Port)
- 2 2114 RAM (1K)
- 1 2716 EPROM (with Monitor)

Both versions include sockets for 2716s or 2532s, 8 16 pin sockets for I/O interfacing and a DB25 connector for RS232.

All address and data lines are brought off the board to the 50 pin edge connector. (similar to the Apple II bus)

This board also features power on reset and cassette interface.

81-030 C Fully Populated	**$349.95**
81-030M Partially Populated	**$249.95**
81-030B Bare Board	**$ 89.95**
2716 EPROM (with Monitor)	**$ 19.95**
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ability to create new files from old. You just create a new data file structure and read the old data into the new structure. In a similar manner you can merge data bases. This feature also allows you to add or delete fields and to change the size of fields. But it is not very easy to change the names of fields. dBASE can even handle data produced by other programs, in a similar manner.

TABLE 2
SUMMARY OF dBASE II COMMANDS

ACCEPT	ERASE	READ
APPEND	FIND	RECALL
CANCEL	GOTO	RELEASE
CHANGE	IF ELSE	REPLACE
CLEAR	INDEX	REPORT
CONTINUE	INPUT	RESET
COPY	INSERT	RESTORE
COUNT	JOINT	SAVE
CREATE	LIST	SORT.
DISPLAY	LOOP	TOTAL
DO	MODIFY	UPDATE
DO WHILE	PACK	USE
EDIT	QUIT	WAIT

dBASE is not for everyone. To use it effectively, one needs to know something about programming. The dBASE language is similar in size and complexity to an extended BASIC (Table 2 gives a list of commands).

The manual comes in two parts: a tutorial and a reference. The manual is good but not great. It is well written but the reference section could use more examples. The dBASE system also comes with several programs, including an accounting system and a mailing list program. These programs should have more detailed instructions with them.

dBASE is a very good package. In fact it's excellent. If you have the need and the bucks, I highly recommend it. I was told that Ashton-Tate is working on a licensing system whereby programmers can write applications programs written in dBASE. They are also planning an Apple DOS version that will cost around $350.

Philip B. Ender

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BOOK REVIEWS

HOW TO GET STARTED WITH CP/M

Townsend, Carl. *How to Get Started with CP/M.* Beaverton, Oregon: dilithium Press. 1981. 127

Because this 1981 book fails to mention the Apple, readers may wonder why it is being reviewed in APPLESAUCE. It is because CP/M has become the microcomputer industry stardard disk operating system.

In the first 22 pages, Townsend introduces operating systems in microcomputers in general and CP/M specifically. This, for some readers, will amount to an introduction to computers per se. The explanations of these topics are lucid and simple, without any reference to bits and bytes, binary or hexadecimal number systems or the like, which for some readers will be a welcome omission.

In a section titled "Purchasing an Operating System," Townsend states "Good, easy to read documentation is essential." This, of course, cannot be emphasized too strongly. Then, pp 22-85 introduces CP/M with numerous examples of file handling, editing, and utilities. The book ends with six Appendices (pp 87-127) on suppliers, a user group, and a glossary.

The purpose of the book, then, is split among choosing a system, using it, and supporting it. It focuses upon an orientation to CP/M as an operating system, use of its main features, its utilities and editor. It discusses the continuing support for the CP/M system by many manufacturers. The book was not originally intended for Apple users since the hardware has only recently become available for the Apple. This is unfortunate because Apple users can now expand their systems to use CP/M (the Microsoft Z-80 Softcard is widely discounted to around $300) and thus take advantage of much interesting software and many languages.

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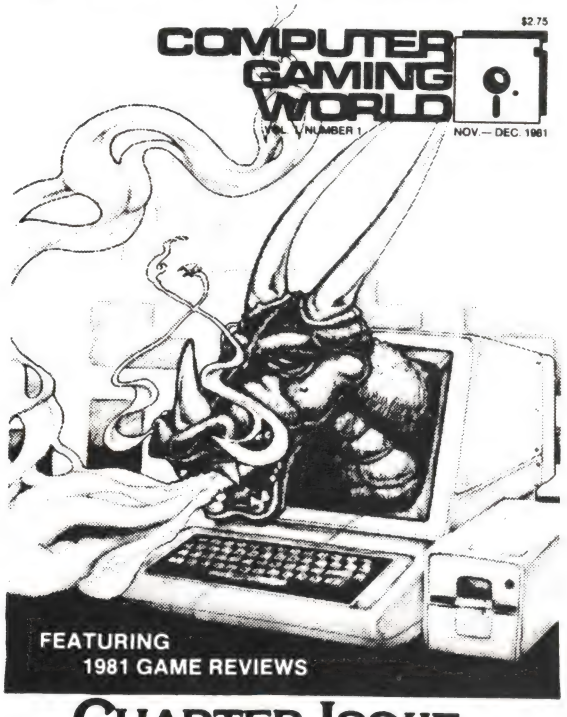

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Earl Rand
Editor

A MESSAGE TO MANUFACTURERS, COMPUTER STORES, AND SOFTWARE DEVELOPERS

When you're looking over this issue of APPLESAUCE, think about how we can help you and how you can help us. Yes, you SHOULD help us because clubs and publications like ours help sell Apple software and peripherals! The better the club and magazine the more Apple-things people will buy. You can specifically help

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(3) By urging your engineers, programmers, documentors, and others to write articles and review products for APPLESAUCE. Employee visibility helps businesses.

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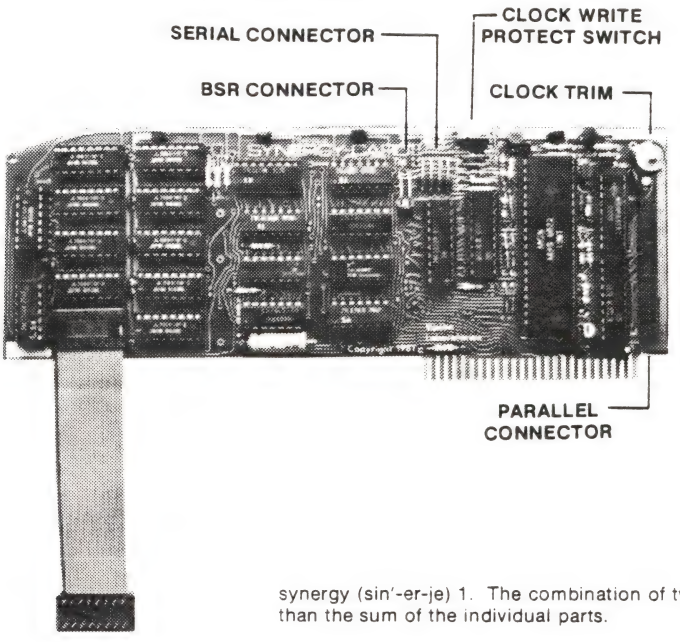

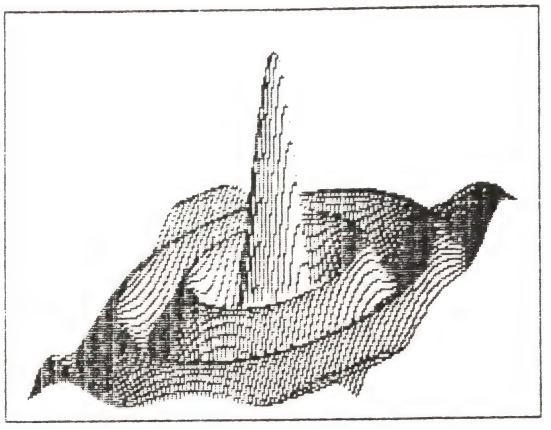

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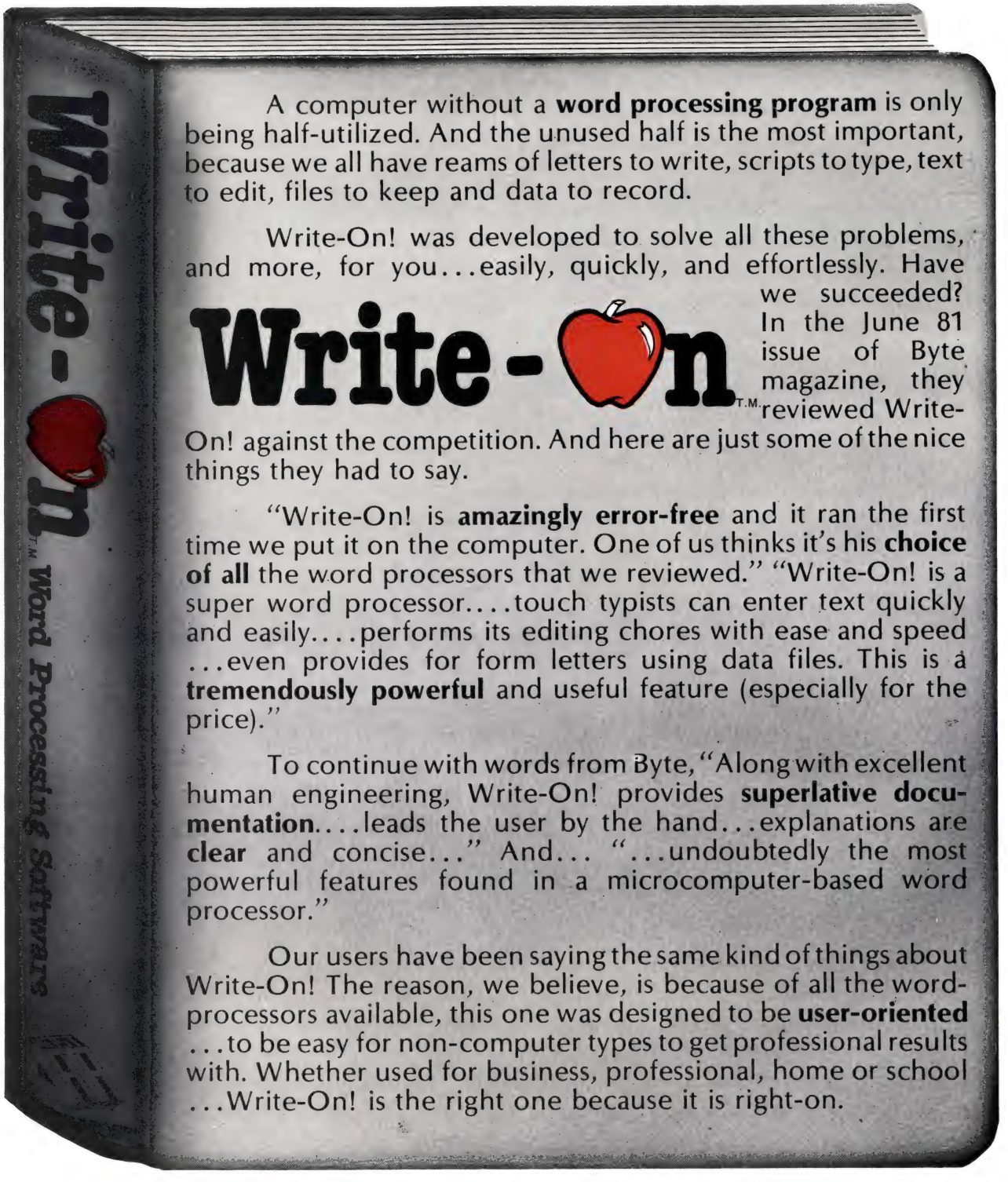

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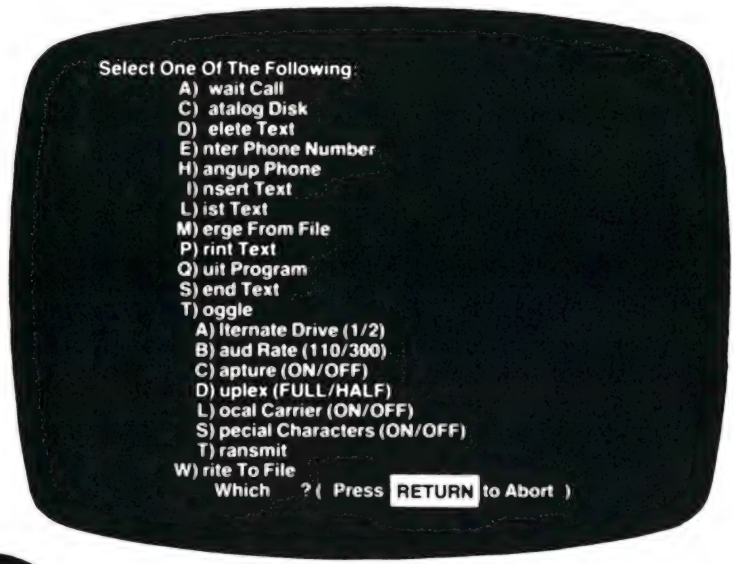

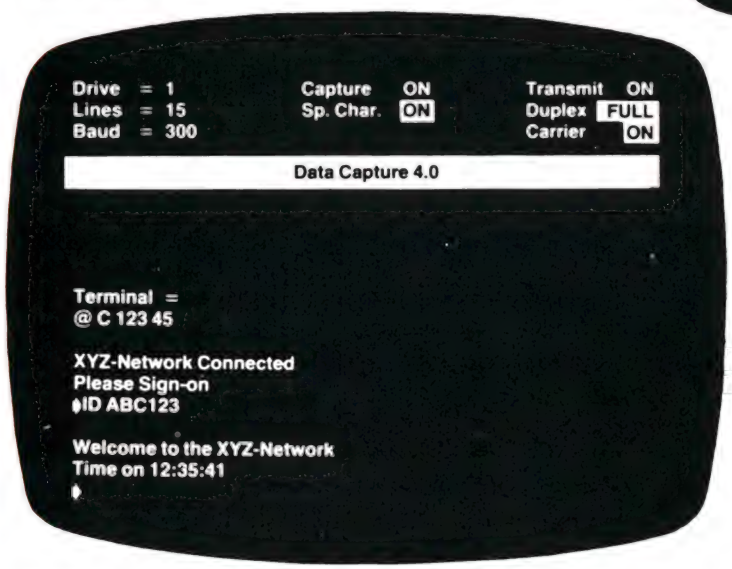

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Los Angeles,
CA 90024

Telephone: (213) 450-8880

MEMBERSHIP

Membership in the Original Apple Corps, $30/year, provides a subscription to APPLESAUCE and permits you to attend OAC classes, purchase the Disk of the Month, hold office, and vote. If you live in the Los Angeles area, you should become a member!

CLUB DISCOUNTS

The Original Apple Corps wants to support other clubs and user groups. Our usual subscription costs $12/year (6 issues). Clubs, however, can subscribe to APPLESAUCE for only $1.25 per issue with $7.50/subscriptions (minimum 10 subscriptions - $75) sent in one package to one address.

BULK SALES TO STORES

Stores can purchase APPLESAUCE in lots of 20 (20, 40, 60, 80, 100...) for $25/per lot. Payment should be included with orders until your credit and your account has been established.

POSTAGE AND RETURNS: APPLESAUCE will pay postage to your store. At your expense, you may return up to 40% (8, 16, 24...) of your order for credit or refund. For example, if you bought 2 lots of 20, then you can return up to 16 issues for full credit or refund. Please do not return torn or damaged issues.

APPLESAUCE ADVERTISING RATES (Net rates)

Full page	(7 1/2 X 9 3/4)	$145.00
Full page	(w/ second color)	$175.00
Inside cover	(w/ second color)	$275.00
Back cover	(w/ second color)	$350.00
Half page	(7 1/2 X 4 7/8)	$90.00
Quarter page	(3 5/8 X 4 7/8)	$55.00

Add $10 for each ad requiring size adjustment. Inquire regarding multi-issue contracts. Advertising agencies often increase the net rates by 15% when billing their clients. To place ads, call:

Ann Saxon
(213) 450-6646
(213) 450-8880 (Messages)

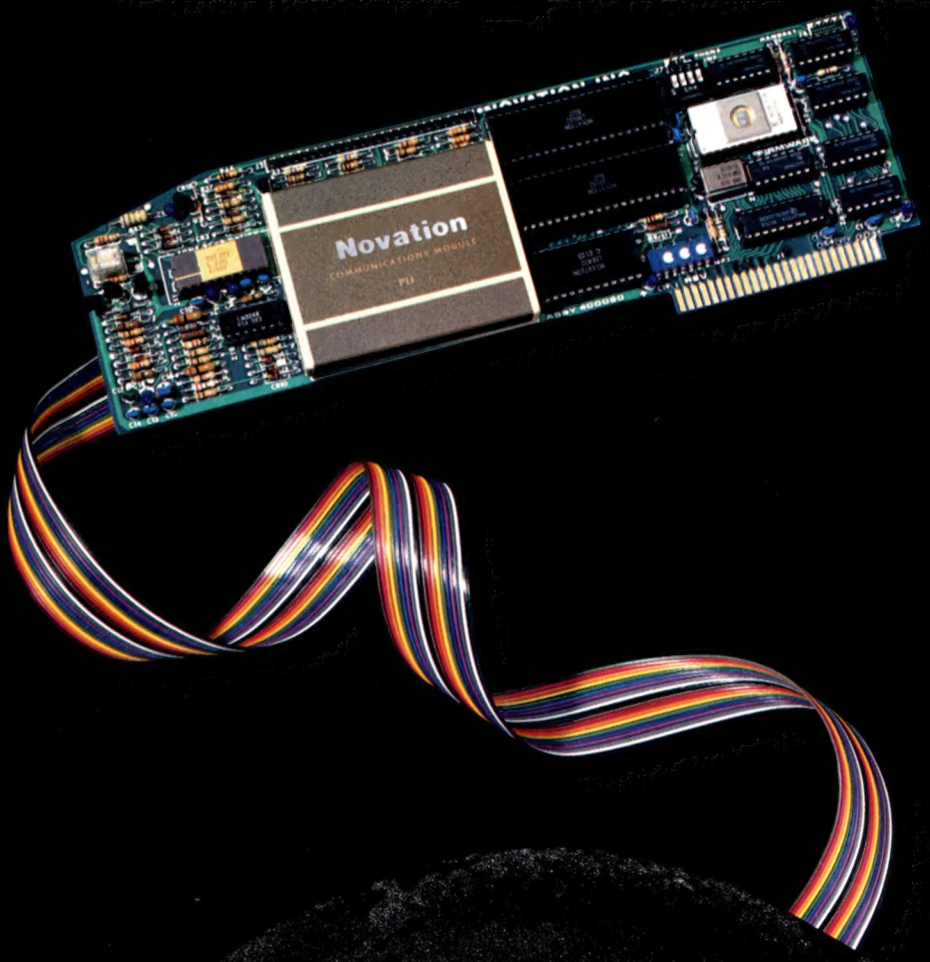
PUBLICATION DATES

ISSUE	LAST DAY FOR RECEIVING ADS	PUBLICATION ON
3.2	Monday 25 January	Friday 6 February
3.3	Monday 9 March	Friday 20 March
(West Coast Computer Faire issue)		
3.4	Monday 17 May	Friday 28 May
(Boston Computer Faire issue)		

A PROFESSIONAL MICROCOMPUTER!!!

Unless you've been living in Upper Volta the last few weeks, you've heard about IBM's super-duper. No need to pan it here as you can do that yourself. But I just want to pass on a statement made by one of their white-tie salesmen: "Now there's a real professional microcomputer." To which someone should have replied, "Wasn't there one before?" Has IBM been keeping their salesmen in north central Africa?

Introducing Novation Apple-Cat II™ *



The Maximum Modem

More than just a modem. It's a personal communication system

If you've been waiting for a major breakthrough in modems, this is it.

First, the Apple*-Cat II™ is a superb direct connect modem. It uses Novation's exclusive modem technology. Absolutely no compromises. It's the best.

But Apple-Cat II is far more than that. It's a full personal communication system with all of those extra features that truly opens up the outside world to your computer. You can access data banks. Swap programs. Talk with your office computer from home. And do it all in the simplest, easiest, most logical way.

For example: Change Speeds

Choose from standard 110 or 300 baud communications—or 1200 baud that can reduce telephone charges by 75%.

The Apple-Cat II is also for the deaf community. It has a special 45.5 baud, Baudot coded, Weitbrecht modem for communicating with the TDD network.

Set it on automatic.

You have all of those automatic functions that let you set up your Apple to run on its own, including automatic dial, answer and disconnect.

The automatic functions are not only convenient, they're money saving. You can do much of your communications unattended, at night when line charges are lowest.

Holds your messages until you ask for them.

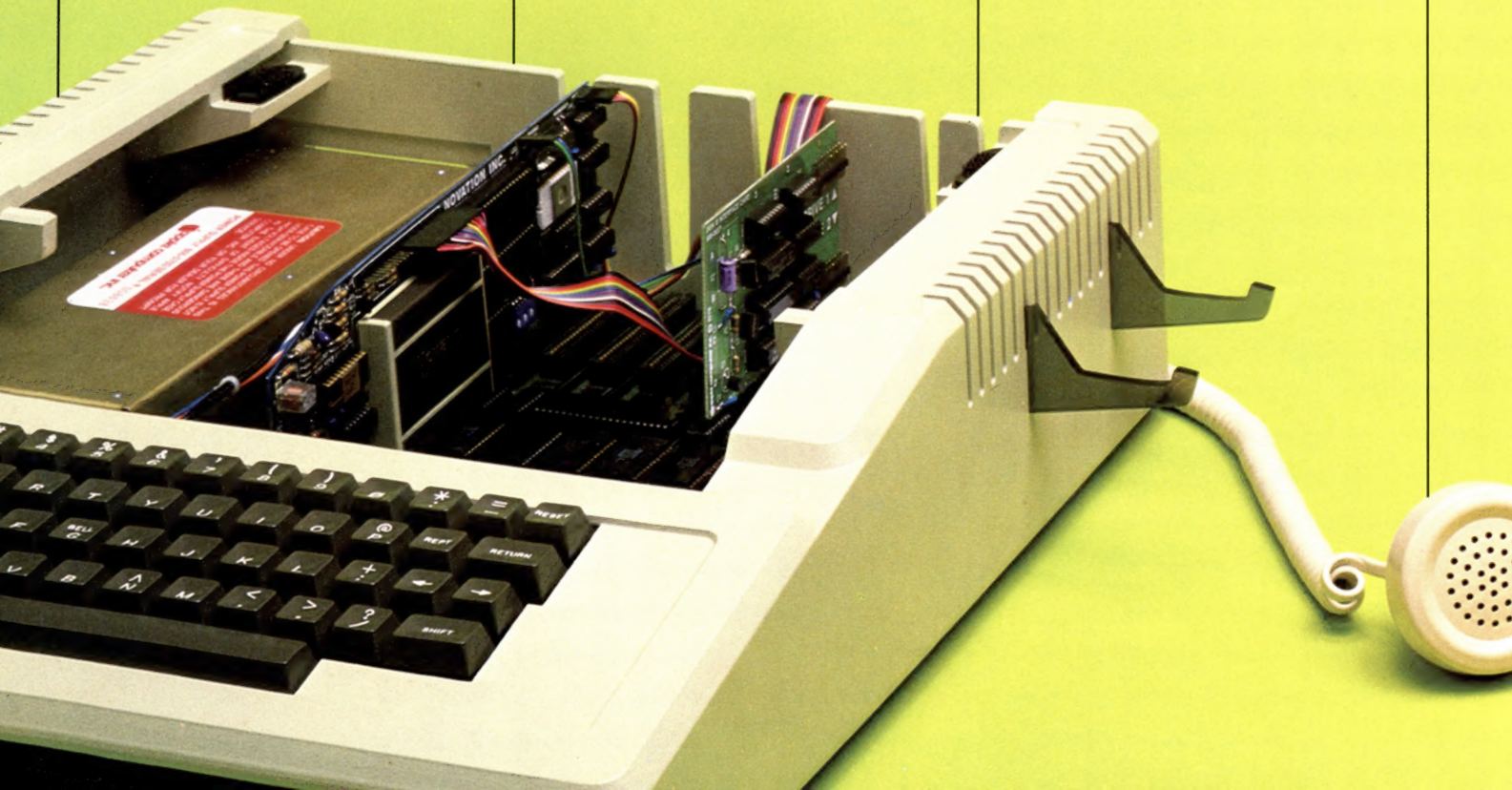
Apple-Cat II organizes your computer memory for message storage. Incoming messages are held for your convenience. Outgoing messages you've created can be stored, then sent on command.

Built-in port for your printer.

The Serial RS-232 port with handshaking to run your printer is built-in. No need for the expense and trouble of a totally separate card.

Start your morning coffee. Water the South Forty.

Built-in BSR controller connects directly to your home wiring. Control is at your fingertips or as close as a phone. Add a real time clock and you can use your computer



to program and run home appliances, lights—anything you power with electricity.

It's a phone.

Apple-Cat II takes up one of your phone lines—but you don't have to lose the use of a phone. A standard handset converts your Apple into an intelligent telephone at the push of a few keys. It's a handy extra phone to have when you want to precede or follow data transmission with a voice call. You can switch from voice to data anytime without losing the connection.

Easy to use.

From day one, you spend your time talking to the world, not mumbling at the modem. All the functions are fully programmed in. Insert the supplied diskette, turn it on and your screen displays a menu of your options. You select each option with the push of a single key. It's a fully self-prompting program—no homework needed to operate.

What have you done?

Your Apple-Cat II knows—and constantly tells you through a status display across the bottom of your screen. Are you in full or half duplex mode? How much of the communication memory have you used? How much is left? And more. It's all there.

Apple-Cat II is the personal communication system you grow into, not out of.

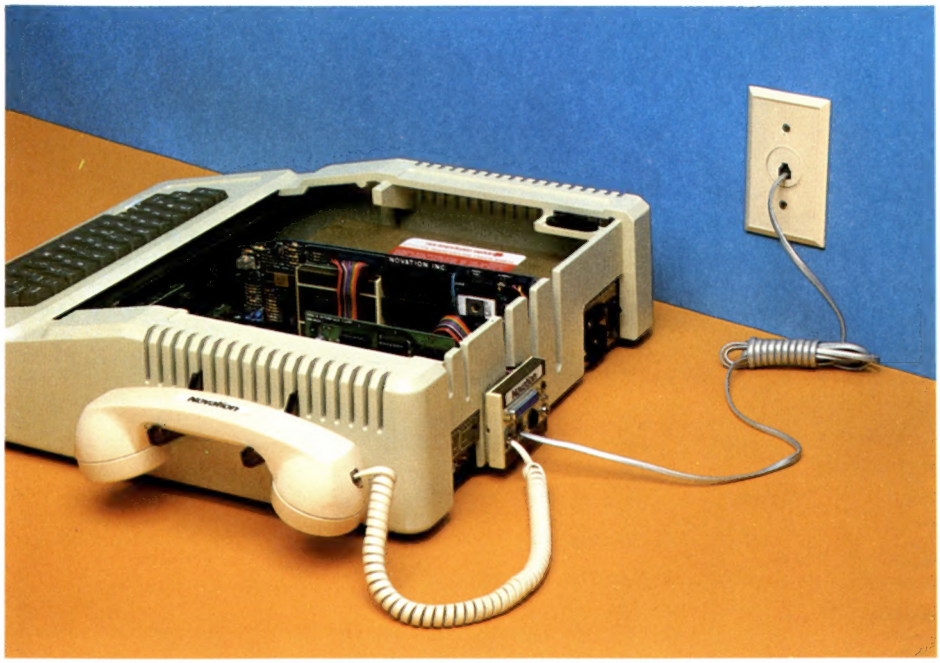
We've designed the Apple-Cat II to give you not only what you need today, but to meet your tomorrow's needs as well.

Many of the features are simple add-ons. So you start with what you want right now, then add features as your needs grow and change. You keep your investment to a minimum, yet always have the option to go to the full Apple-Cat II system.

It's the most advanced modem you can put into your computer.

More features than any other modem.

1. Full range of communication baud rates—up to 1200 (Bell System 100 and 202 series compatible).
2. Full or half duplex operation.
3. Complete communications program on a single diskette.
4. All automatic functions—auto dial (pulse or Touch Tone), redial, auto answer and disconnect.
5. Conventional telephone operation.
6. Touch Tone® receiver.
7. Firmware is expandable and compatible with Basic, Pascal and Z-80 Softcard.
8. Built-in BSR® X-10 Controller.
9. Remote control for external cassette tape recorder.
10. Works with other Apple parallel or serial printer interface cards.
11. Constant status display on screen.
12. Binary or text modes.
13. Single card installation.
14. FCC certified built-in phone line interface (PLI) module.



Simple, plug-in installation

The Apple-Cat II PC board plug into one of the peripheral slots inside your Apple. The small interface expansion module goes on the back of the computer and a ribbon cable connects the module to the PC board.

The telephone handset and holder are mounted on the right side of the frame.

The entire installation should take no more than 5 to 10 minutes.

And just that quickly, you can begin to bring the world into your computer.

ORDER INFORMATION			BENEFITS/FEATURES											ITEMS SHIPPED WITH ORDER												
		PART NUMBER	300 BAUD ANS/ORIG FULL/HALF DUPLEX	1200 BAUD HALF DUPLEX	PULSE & TOUCH TONE DIALING	TOUCH TONE RECEIVER	VOICE TELEPHONE	VOICE RECORDING	BSR X-10 CONTROL	EIA RS232 FULL DUPLEX PORT	SOFTWARE	PROGRAM IN ROM		APPLE-CAT II CARD	OPERATING MANUAL	DISKETTE	LINE MODULAR JACK	HANDSET MODULAR JACK	6 FT MODULAR CABLE	HANDSET WITH CORD & HOLDER	BSR CONTROL INTERFACE	CASSETTE RECORDER CABLE	FIRMWARE ROM	DEAF FIRMWARE ROM	TOUCH TONE DECODER	EXPANSION MODULE	PRICE
BASIC	APPLE-CAT II	490402	X	X	X					X				X	X	X	X	X	X								$389.
ACCESSORIES	EXPANSION MODULE	490403						X	X	X																X	39.
	HANDSET	490404					X													X							29.
	BSR CONTROL*	490405							X												X						19.
	CASSETTE REC CABLE *	490406						X														X					5.
	TOUCH TONE RECEIVER	490407				X																			X		99.
	FIRMWARE	490408	X	X							X												X				29.
	DEAF FIRMWARE	490409	X	X							X													X			29.
	SOFTWARE DISKETTE	490410								X																	29.

*Requires Expansion Module

Prices subject to change without notice.

NOTE: Apple-Cat II requires a 48K Apple II or Apple II Plus with a single disk drive and a 3.2, 3.2.1 or 3.3 Disk Operating System (D.O.S.). Diskette is formatted in 3.2.1 DOS. Conversion to 3.3 DOS can be done by using Apple II Muffin Program.

See the Apple-Cat II Modem at your computer store.

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